

Pending Claims

1. (previously presented) A process to isolate a neurotrophin from a mixture containing variants of said neurotrophin, wherein the process comprises: a) purifying a neurotrophin mixture; b) loading the mixture containing the neurotrophin onto a hydrophobic interaction chromatography resin; c) eluting the neurotrophin from the resin with an elution buffer under conditions in which the neurotrophin separates from the variant; and d) collecting the neurotrophin.
2. (previously presented) The process of claim 1, wherein said purifying comprises affinity chromatography.
3. (previously presented) The process of claim 1, wherein said purifying comprises purifying with chromatography on silica.
4. (previously presented) The process of claim 1, wherein said purifying comprises purifying with chromatography on heparin Sepharose
5. (previously presented) The process of claim 1, wherein said purifying comprises purifying with chromatography on an anion exchange resin.
6. (previously presented) The process of claim 1, wherein said purifying comprises purifying with chromatography on a cation exchange resin.
7. (previously presented) The process of claim 1, wherein said purifying comprises purifying with chromatofocusing.
8. (previously presented) The process of claim 1, wherein said purification comprises purifying with preparative SDS-PAGE.
9. (previously presented) The process of claim 6, wherein said cation exchange resin comprises a polyaspartic acid column.
10. (previously presented) The process of claim 1, wherein the resin comprises a phenyl functional group.

11. (previously presented) The process of claim 10, wherein the resin is a sulphopropyl sepharose high performance (SP-Sepharose HP), poly aspartic acid resin, polysulfoethyl cation exchange resin, or sulfoisobutyl ( $\text{SO}_3$ ) resin.

12. (previously presented) The process of claim 10, further comprising the step of separating the neurotrophin from a misfolded variant of that neurotrophin using preparative reversed-phase liquid chromatography resin.

13. (previously presented) The process of claim 12, wherein the resin contains a carbon at position 4 (C4) functional group.

14. (previously presented) A composition prepared by the method of claim 1 comprising a neurotrophin.

15. (previously presented) A composition prepared by the method of claim 1 comprising a mixture of neurotrophins.

16. (previously presented) The composition of claim 15 wherein said mixture of neurotrophins comprises NGF and at least one other neurotrophin.

17. (previously presented) The composition of claim 15 wherein said mixture of neurotrophins comprises at least two neurotrophins selected from the group consisting of NGF, NT-4/5, NT-3, BDNF, and homologs thereof.

18. (previously presented) The process of claim 1, wherein said loading of said mixture comprises loading a mixture having a volume of at least about 700 mL onto a hydrophobic interaction chromatography resin.

19. (previously presented) The process of claim 1, wherein said loading of said mixture comprises loading a mixture having a volume of at least about 1200 mL onto a hydrophobic interaction chromatography resin.

20. (previously presented) A process to isolate a neurotrophin from a mixture containing variants of said neurotrophin, wherein the process comprises: a) purifying a neurotrophin mixture prepared from cells; b) loading the mixture containing the neurotrophin onto a hydrophobic interaction chromatography resin; and c) eluting the

neurotrophin from the resin with an elution buffer under conditions in which the neurotrophin separates from the variant.